



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,281	05/23/2006	Matthew John Reedman	SCH-00128	5983

30853 7590 10/04/2007
WARN, HOFFMANN, MILLER & LALONE, .P.C
PO BOX 70098
ROCHESTER HILLS, MI 48307

EXAMINER

CALLAWAY, JADE R

ART UNIT	PAPER NUMBER
----------	--------------

2872

MAIL DATE	DELIVERY MODE
-----------	---------------

10/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/580,281	REEDMAN, MATTHEW JOHN	
	Examiner	Art Unit	
	Jade Callaway	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/23/06, 8/29/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/29/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The preliminary amendment to the claims filed on 5/23/06 has been entered since it conforms to 37 CFR 1.115 (a) and (b).
2. Receipt is acknowledged of the preliminary amendment to the specification filed 5/23/06.
3. Receipt is acknowledged of the preliminary amendment to the abstract filed on 5/23/06.

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Oath/Declaration

5. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

Non-initialed and/or non-dated alterations have been made to the oath or declaration. See 37 CFR 1.52(c).

Specification

6. The abstract of the disclosure is objected to because:
 - A) The length exceeds 150 words
 - B) Legal phraseology is used.

Correction is required. See MPEP § 608.01(b).

Art Unit: 2872

7. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Drawings

8. The drawings were received on 5/23/06. These drawings are acceptable.

Claim Objections

9. Claim 20 recites the limitation "the base" in line 7. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2872

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Olijnyk et al. (WO 02/097922).

Consider claim 1, Olijnyk et al. teach (e.g. figures 1 and 5) a power-folding vehicle mirror assembly comprising: a base mountable (28, 30, 14, 40, 42, attachment strap) to a vehicle; a clutch body (64) mounted to and rotationally fixed to the base; a sun gear (56, drive gear) slidably mounted to the base for rotation about a first axis, the sun gear biased towards engagement with the clutch body by a biasing means (70, clutch spring); a mirror head assembly (11) rotatably mounted to the base; a planetary gear (54, drive worm) mounted to the mirror head assembly for rotation about a second axis, the planetary gear meshing with the sun gear; and a motor (46) operably connected to the planetary gear for driving the mirror head assembly around the sun gear, wherein, upon the application of a manual breakaway force to the mirror head assembly, the planetary gear transmits a breakaway torque to sun gear, the breakaway torque sliding the sun gear away from and out of engagement with the clutch body, thereby allowing rotation of the sun gear and mirror head assembly with respect to the base while maintaining mesh with the planetary gear [pg. 6, paragraph 2, pg. 7, paragraphs 1-4, pgs. 11-13].

Consider claim 2, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the biasing means comprises a spring (70, clutch spring) [pg. 7, paragraph 4].

Art Unit: 2872

Consider claim 3, Olijnyk et al. teach (e.g. figure 5) an assembly further comprising ramped detents (66/68) on the clutch body (64) bearing against corresponding detents (62/60) on the sun gear (56, drive gear), whereby the ramped detents enable an axial force to be generated as the detents are rotationally forced against each other, the axial force working against the spring to enable the sun gear to disengage from the clutch body thereby allowing relative rotation [pg. 7, paragraphs 3-4, pgs. 11-13].

Consider claim 4, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the planetary gear is a worm gear (54, drive worm) [pg. 7, paragraph 2].

Consider claim 5, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring comprises a disc spring (70, clutch spring) [pg. 3, paragraph 5, pg. 7, paragraph 4].

Consider claim 6, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring has a negative spring rate [pg. 3, paragraph 5].

Consider claim 7, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the first and second axes are orthogonal, the sun gear (56, drive gear) is helically formed at a first helix angle and the worm gear (54, drive worm) is helically formed at a second helix angle complimentary to the first helix angle.

Consider claim 8, Olijnyk et al. teach (e.g. figures 5-7) an assembly wherein the ramped detents (66/68 or 60/62) are ramped so that the breakaway torque is substantially the same in either breakaway direction [pgs. 11-13].

Consider claim 9, Olijnyk et al. teach (e.g. figure 1) an assembly wherein the mirror head assembly comprises: an arm (15, 16) having a proximal end rotatably mounted to the base and a distal end remote from the base; a head (12) mounted to the distal end of the arm; and a mirror (13) mounted to the head [pg. 6, paragraph 2].

Consider claim 10, Olijnyk et al. teach (e.g. figures 1, 5) an assembly wherein the planetary gear (54, drive worm) and motor (46) are housed within the arm (24, motor assembly) [pg. 6, paragraph 4].

Consider claim 11, Olijnyk et al. teach (e.g. figures 1, 5) a clutch and reduction drive assembly comprising: a first gear (54, drive worm) mounted to a first body for rotation about a first axis; a second gear (56, drive gear) meshing with the first gear, the second gear mounted to a second body for rotation about a second axis; and a clutch (64) mechanism having a clutch body and a clutch body receiving portion, the receiving portion (68, clutch recesses) mounted to or integral with the second gear, the clutch mechanism preventing relative rotation between the clutch body and the second gear in an engaged position and allowing relative rotation between the clutch body and the second gear in a disengaged position, wherein the clutch mechanism is disengageable by movement of the second gear together with the receiving portion with respect to both the clutch body and the first gear while the second gear remains meshing with the first gear, the movement in a direction along the second axis of rotation [pg. 7, paragraphs 1-4; pgs. 11-13].

Consider claim 12, Olijnyk et al. teach (e.g. figures 1, 5) an assembly wherein the clutch mechanism is loaded by a spring (70, clutch spring) [pg. 7, paragraph 4].

Consider claim 13, Olijnyk et al. teach (e.g. figures 1, 5) an assembly wherein the clutch mechanism (64, clutch) further comprises ramped detents (66/68) on the clutch body bearing against corresponding detents on receiving portion (60/62), whereby the ramped detents enable an axial force to be generated as the detents are rotationally forced against each other, the axial force overcoming the load on the clutch mechanism provided by the spring thereby enabling the clutch mechanism to disengage [pg. 7, paragraph 3; pgs. 11-13].

Consider claim 14, Olijnyk et al. teach (e.g. figures 1,5) an assembly wherein the first gear is a worm gear (54, drive worm) [pg. 7, paragraph 2].

Consider claim 15, Olijnyk et al. teach (e.g. figures 1, 5) an assembly wherein the worm gear is driven by a motor (46) [pg. 7, paragraph 2].

Consider claim 16, Olijnyk et al. teach (figure 5) an assembly wherein the motor (46) drives the worm gear through a reduction gear drive (50, motor worm gear) [pg. 7, paragraph 2].

Consider claim 17, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the reduction gear drive (50; motor worm gear) includes a further worm gear (48, drive worm) [pg. 7, paragraph 2].

Consider claim 18, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring comprises a disc spring (70, clutch spring) [pg. 3, paragraph 5; pg. 7, paragraph 4].

Consider claim 19, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring (70, clutch spring) has a negative spring rate [pg. 3, paragraph 5].

Art Unit: 2872

Consider claim 20, Olijnyk et al. teach (e.g. figures 1, 5) a clutch and reduction drive assembly comprising: a primary frame (80, lower support), a clutch body (64) mounted to and rotationally fixed to the primary frame; a primary gear (56, drive gear) slidably and rotatably fixed to the primary frame for rotation about a first axis, the primary gear biased towards engagement with the clutch body by a biasing means (70, clutch spring); a secondary frame (42, housing) rotatably mounted to the base, and a second gear (54, drive worm) mounted to the secondary frame for rotation about a second axis, the secondary gear meshing with the primary gear, wherein the primary gear is movable against the biasing means from an engaged position in which rotation with respect to the clutch body is prevented to a disengaged position in which rotation with respect to the clutch body occurs [pg. 7, paragraphs 1-4; pgs. 11-13].

Consider claim 21, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the biasing means comprises a spring (70, clutch spring) [pg. 7, paragraph 4].

Consider claim 22, Olijnyk et al. teach (e.g. figure 5) an assembly comprising ramped detents (66/68) on the clutch body (64) bearing against corresponding detents (60/62) on the primary gear (56, drive gear), whereby the ramped detents enable an axial force to be generated as the detents are rotationally forced against each other, the axial force working against the spring to enable the primary gear to disengage from the clutch body thereby allowing relative rotation [pg. 7, paragraph 3, pgs. 11-13].

Consider claim 23, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the secondary gear is a worm gear (54, drive worm) [pg. 7, paragraph 2].

Art Unit: 2872

Consider claim 24, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring comprises a disc spring (70, clutch spring) [pg. 3, paragraph 5; pg. 7, paragraph 4].

Consider claim 25, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the spring has a negative spring rate [pg. 3, paragraph 5].

Consider claim 26, Olijnyk et al. teach (e.g. figure 5) an assembly wherein the first and second axes are orthogonal, the primary gear (56, drive gear) is helically formed at a first angle and the worm gear (54, drive worm) is helically formed at a second helix angle complimentary to the first helix angle.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Foote et al. (7,070,287) disclose a vehicular mirror system with at least one power-fold and power-extend functionality. Yamauchi (2002/0105740) discloses an electrically powered retractable door mirror. Van de Loo (6,322,221) discloses a mirror operating mechanism.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jade Callaway whose telephone number is 571-272-8199. The examiner can normally be reached on Monday to Friday 7:00 am -4:30 pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone

Art Unit: 2872

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRC

Stephone B. Allen
Supervisory Patent Examiner